

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0053261; AI 19606; PER20080001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. THE APPLICANT IS:

Town of Gibsland
Gibsland Municipal Wastewater Treatment Facility
P.O. Box 309
Gibsland, LA 71028

II. PREPARED BY:

Eura DeHart

DATE PREPARED:

October 14, 2008

III. PERMIT ACTION:

reissue LPDES permit LA0053261, AI 19606; PER20080001

LPDES application received: August 27, 2008

EPA has not retained enforcement authority.

LPDES permit issued: February 3, 2004

LPDES permit expires: February 28, 2009

IV. FACILITY INFORMATION:

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Town of Gibsland.
- B. The permit application does not indicate the receipt of industrial wastewater.
- C. The facility is located approximately one-quarter mile north and one-half mile west of the intersection of U.S. Highway 80 and LA Highway 154 in Gibsland, Bienville Parish.
- D. The treatment facility consists of a three-cell oxidation pond. Disinfection is by chlorination.
- E. Outfall 001

Discharge Location: Latitude 32° 33' 2" North
Longitude 93° 3' 47" West

Description: treated sanitary wastewater

Design Capacity: 0.15 MGD

Type of Flow Measurement which the facility is currently using:
Totalizing meter

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V. RECEIVING WATERS:

The discharge is into Black Lake Creek, thence into Leatherman Creek in Subsegment 100702 of the Red River Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 100702 of the Red River Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment 100702	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Full	Full	Full	Full	Full	N/A	N/A	Full

^{1/}The designated uses and degree of support for Segment 100702 of the Red River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 100702 of the Red River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 27, 2007 from Boggs (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered, or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

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Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mr. Eura DeHart
Water/Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

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IX. PROPOSED PERMIT LIMITS:

Subsegment 100702, Black Lake Bayou - Webster-Bienville Parish Line to Black Lake (Scenic), is listed on LDEQ's Final 2006 303(d) List as impaired for organic enrichment/low dissolved oxygen (EPA - Category 5). To date no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL. Until completion of TMDLs for the Red River Basin, those suspected causes for impairment which are not directly attributed to the sanitary wastewater point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit.

Organic Enrichment/ Low Dissolved Oxygen

To protect against the potential for oxygen consuming pollutants to cause or contribute to instream organic enrichment/low dissolved oxygen impairments, oxygen-demanding substances will be limited through an a BOD₅ limitation. Compliance with the BOD₅ limitation as the indicator parameter will result in the control of oxygen-demanding substances from the discharge sufficient to attain and maintain the applicable water quality standard. Effluent monitoring of the indicator parameter as conducted by the permittee in accordance with Part I of the permit in addition to LDEQ's ambient water quality monitoring program will allow for further evaluation by the Department to determine the effectiveness of the limitation. The reopener clause located in Part II of the final permit allows the Department to modify or revoke and reissue the permit if the limitations as set on the indicator parameter are shown to no longer attain and maintain applicable water quality standards.

Final Effluent Limits:**OUTFALL 001**

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg (lbs./day)	Monthly Avg	Weekly Avg	Basis
BOD ₅	12.5	10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size.
TSS	18.8	15 mg/l	23 mg/l	Limits are set in accordance with the previous permit for the facility

*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.

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measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.

Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5., the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Daily Maximum) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0053261: Issued: February 3, 2004
Expires: February 28, 2009

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Avg.</u>	<u>Weekly Avg.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
BOD ₅	10 mg/l	15 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab
pH	6.0 (min)	9.0 (max)	2/month	Grab

The permit contains pollution prevention language.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:**A) Inspections**

A review of the files indicates the most recent inspection of the facility was conducted on November 30, 2006. The following was noted:

- The facility is a three-cell oxidation pond with chlorination of the effluent.
- Non-compliance issues were found in BOD for Feb. 2006, Mar. 2006, Jan. 2006, and Dec. 2005. Also issues were found in TSS in Jan. 2006, and pH in Sept. 2006.
- The municipal wastewater pollution prevention plan is not being conducted. Mr. Aycock was informed that it needed to be conducted in accordance with Section B of the permit.

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- The facility looked to be in good condition and well maintained at the time of inspection.
- Employment of Mr. Aycock began in Nov. 2005.

B) Compliance and/or Administrative Orders

A review of the files indicates that Consolidated Compliance Order and Notice of Potential Penalty (Enforcement Tracking No. WE-CN-05-0394) was issued on November 27, 2006. On August 7, 2008, the Order was Amended.

The compliance order included:

- Violations of the permit reported to the Department on the DMRs between September 2002 and September 2006.
- Failure to timely submit application for renewal of permit
- Unauthorized discharges of inadequately treated sanitary wastewater between March 2003 and February 2004
- Facility exceeded its design capacity between July 2002 and May 2006
- Failure to sample as required
- Failure to submit timely DMRs
- Failure to submit noncompliance reports

The amended compliance order included:

- Violations of the permit reported to the Department on the DMRs between December 2006 and March 2008
- Failure to complete the MWPPP (as noted in the November 30, 2006 inspection)
- Submitted incomplete DMRs
- Compliance schedule for construction of a new sewage treatment plant

C) DMR Review

A review of the discharge monitoring reports for the period beginning July 2006 through June 2008 has revealed the following violations:

Parameter	Outfall	Period of Excursion	Permit Limit	Reported Quantity
pH, minimum	001	September 2006	6.0 (min)	5.8 (min)
BOD ₅	001	December 2006	12.5 lbs/day	12.7 lbs/day
BOD ₅	001	January 2007	12.5 lbs/day	98.6 lbs/day
BOD ₅ , Monthly Avg.	001	January 2007	10 mg/l	35.6 mg/l
BOD ₅ , Weekly Avg.	001	January 2007	15 mg/l	52.7 mg/l
TSS	001	January 2007	18.8 lbs/day	44.8 lbs/day
TSS, Monthly Avg.	001	January 2007	15 mg/l	16.0 mg/l
Fecal Coliform, Monthly Avg.	001	January 2007	200/100 ml	293/100 ml
BOD ₅	001	February 2007	12.5 lbs/day	19.5 lbs/day
BOD ₅ , Monthly Avg.	001	February 2007	10 mg/l	10.4 mg/l
TSS	001	February 2007	18.8 lbs/day	42.7 lbs/day
TSS, Monthly Avg.	001	February 2007	15 mg/l	23.0 mg/l
TSS, Weekly Avg.	001	February 2007	23 mg/l	28.0 mg/l
BOD ₅	001	April 2007	12.5 lbs/day	20.2 lbs/day
BOD ₅ , Monthly Avg.	001	April 2007	10 mg/l	14.4 mg/l
BOD ₅ , Weekly Avg.	001	April 2007	15 mg/l	16.3 mg/l
TSS	001	April 2007	18.8 lbs/day	24.6 lbs/day

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TSS, Monthly Avg.	001	April 2007	15 mg/l	17.4 mg/l
BOD ₅	001	June 2007	12.5 lbs/day	47.8 lbs/day
BOD ₅ , Monthly Avg.	001	June 2007	10 mg/l	23.4 mg/l
BOD ₅ , Weekly Avg.	001	June 2007	15 mg/l	34.6 mg/l
BOD ₅	001	July 2007	12.5 lbs/day	33.6 lbs/day
BOD ₅ , Monthly Avg.	001	July 2007	10 mg/l	13.4 mg/l
TSS	001	July 2007	18.8 lbs/day	41.2 lbs/day
TSS, Monthly Avg.	001	July 2007	15 mg/l	16.5 mg/l
Fecal Coliform, Monthly Avg.	001	July 2007	200/100 ml	536/100 ml
Fecal Coliform, Weekly Avg.	001	July 2007	400/100 ml	645/100 ml
BOD ₅ , Weekly Avg.	001	August 2007	15 mg/l	17.2 mg/l
pH, minimum	001	October 2007	6.0 (min)	5.7 (min)
BOD ₅	001	November 2007	12.5 lbs/day	No measurement
TSS	001	November 2007	18.8 lbs/day	No measurement
Flow	001	November 2007	MGD	No measurement
BOD ₅	001	December 2007	12.5 lbs/day	30.25 lbs/day
BOD ₅ , Monthly Avg.	001	December 2007	10 mg/l	18.0 mg/l
BOD ₅ , Weekly Avg.	001	December 2007	15 mg/l	18.0 mg/l
BOD ₅	001	January 2008	12.5 lbs/day	31.2 lbs/day
BOD ₅ , Monthly Avg.	001	January 2008	10 mg/l	20.6 mg/l
BOD ₅ , Weekly Avg.	001	January 2008	15 mg/l	39.3 mg/l
pH, minimum	001	January 2008	6.0 (min)	5.8 (min)
TSS	001	January 2008	18.8 lbs/day	44.1 lbs/day
TSS, Monthly Avg.	001	January 2008	15 mg/l	42 mg/l
TSS, Weekly Avg.	001	January 2008	23 mg/l	52 mg/l
BOD ₅	001	February 2008	12.5 lbs/day	51.9 lbs/day
BOD ₅ , Monthly Avg.	001	February 2008	10 mg/l	21.3 mg/l
BOD ₅ , Weekly Avg.	001	February 2008	15 mg/l	24.2 mg/l
TSS	001	February 2008	18.8 lbs/day	62.6 lbs/day
TSS, Monthly Avg.	001	February 2008	15 mg/l	23.6 mg/l
TSS, Weekly Avg.	001	February 2008	23 mg/l	33.3 mg/l
Fecal Coliform, Weekly Avg.	001	February 2008	400/100 ml	1395/100 ml
BOD ₅	001	March 2008	12.5 lbs/day	77.3 lbs/day
BOD ₅ , Monthly Avg.	001	March 2008	10 mg/l	32.4 mg/l
BOD ₅ , Weekly Avg.	001	March 2008	15 mg/l	33.0 mg/l
TSS	001	March 2008	18.8 lbs/day	119.5 lbs/day
TSS, Monthly Avg.	001	March 2008	15 mg/l	49.4 mg/l
TSS, Weekly Avg.	001	March 2008	23 mg/l	52.0 mg/l
Fecal Coliform, Monthly Avg.	001	March 2008	200/100 ml	803/100 ml
Fecal Coliform, Weekly Avg.	001	March 2008	400/100 ml	909/100 ml
BOD ₅	001	April 2008	12.5 lbs/day	57.9 lbs/day
BOD ₅ , Monthly Avg.	001	April 2008	10 mg/l	34.3 mg/l
BOD ₅ , Weekly Avg.	001	April 2008	15 mg/l	44.0 mg/l
TSS	001	April 2008	18.8 lbs/day	40.4 lbs/day

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TSS, Monthly Avg.	001	April 2008	15 mg/l	22.5 mg/l
TSS, Weekly Avg.	001	April 2008	23 mg/l	24.0 mg/l
BOD ₅ , Monthly Avg.	001	May 2008	10 mg/l	10.8 mg/l
pH, minimum	001	May 2008	6.0 (min)	4.6 (min)
pH, minimum	001	June 2008	6.0 (min)	2.8 (min)

XII. ADDITIONAL INFORMATION:

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The LDEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

In accordance with LAC 33:IX.2903, this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(c) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

- Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- Controls any pollutant not limited in the permit; or
- Requires reassessment due to change in 303(d) status of waterbody; or
- Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.15 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.15 \text{ MGD} \times 10 \text{ mg/l} = 12.5 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.10 and 0.50 MGD.

Effluent CharacteristicsMonitoring Requirements

	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	Continuous	Recorder
BOD ₅	2/month	Grab
Total Suspended Solids	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

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Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, general pretreatment language will be used due to the lack of either an approved or required pretreatment program.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report each year for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Town of Gibsland, Gibsland Municipal Wastewater Treatment Facility, August 27, 2008.